

10/733,859

REMARKS

Claims 17-19, 21-24 and 28-33 are rejected, under 35 U.S.C. § 103(a), as being unpatentable over DE-297 16 362 (DE '362) in view of Pusch et al. '882. The Applicant acknowledges and respectfully traverses the raised obviousness rejection in view of the following remarks.

As the Examiner is aware, in order to properly support a rejection under 35 U.S.C. § 103(a), the references must provide some express or inherent disclosure or motivation which would lead a person of skill in the art to combine the references as suggested by the Examiner. While arguably each of these references discloses a glass-fiber material to be used as the base fabric, e.g., the light woven fabric 11 in the Pusch et al. '882, and the glass filament textile 1 as disclosed in DE '632, these references each disclose an entirely different layered cloth structure.

Observing the arrangement of the layered cloth material disclosed in Fig. 1 of the DE '362 and understanding the differences of the presently claimed invention from this reference as noted in the Applicant's specification, DE '362 specifically discloses a silica elastomer 2 and a silica elastomer 4 as the respective surface coatings on both sides of the underlying base layer 1.

Completely different from this generic known structure, Pusch et al. '882 specifically discloses on each side of the light woven fabric 11, a plastic coating 12, a metal film 13 thereon and finally a color coat 14, including primers between each layer 11-14 for improving the adhesive strength. This explicit layered cloth structure is the only description provided for such a tent fabric. While arguably the plastic coating 12 may be PVC, polyurethane or silicone rubber as described at column 2, lines 5-8, the further layering of the metal film 13 and color coat 14 is an entirely different cloth structure from either DE '362 or the presently claimed invention. The disclosures of the combined references, are particularly specific with respect to the materials layering and thus the Applicant can see nothing which would cause one of skill in the art to combine these references.

11/23/05 -11:47 AM

10/733,859

Even if it were possible to combine these references as suggested by the Examiner, and the Applicant adamantly asserts that they cannot be properly combined, the combination would still not teach the specific features of the present invention as claimed. In particular, the Applicant has amended claim 17 to more definitively set forth the specific nature of the presently claimed invention wherein the *outer surface* coating of the fabric is either a polyurethane or a polyvinylidene fluoride coating (PVDF).

The plastic coating 12 shown in Pusch et al. '882 is explicitly not disclosed as the outer surface coating of the tent material where it is covered with the metal layer 13 and paint layer 14. Claim 17 now specifically recites the feature, " wherein at least the *surface coating containing color pigments (5)* on the outer side is one of a polyurethane coating (4) and a polyvinylidene fluoride coating (PVDF)". Thus, even if the applied references of DE '362 and Pusch et al. '882 can be combined, such a combination would still fail to disclose such a feature as recited in claim 17 where the polyurethane coating as disclosed in Pusch et al. '882 would still be covered by the metal film 13 and color coat 14.

By way of further explanation, the claimed outer surface layer of the camouflage fabric is an important part of the present invention as discussed in the Applicant's specification because of the differences from the known silicone elastomer coatings as disclosed in DE '362. as set forth at page 3, paragraph 015, "The thermo-camouflage sheet of the generic type, on the basis of the silicone elastomer coating, could be produced only in a very restricted range of colors. It is now possible to provide not only the normal green optics, which were used specifically for camouflage nets for use in woodland, but also to provide optics matched to the desert (sand colors) or to the arctic (white)."

Among other advantages the polyurethane coating or polyvinylidene fluoride coating advantageously make it possible to produce a matt surface, thus reducing the visual detection capability and article numbers can easily be applied to the polyurethane coating or to the polyvinylidene fluoride coating. Furthermore as discussed in the Applicant's specification at page 3 paragraph 20,

11/23/05 11:47 AM

10/733,859

In comparison to the reflectometer values for thermal camouflage sheets of this generic type, which were 2.8 at 60° and 1.4 at 85°, the new thermal camouflage sheets according to the invention and based on the polyurethane coating or the polyvinylidene fluoride coating have produced values which are 2.2 at 60° and 1.6 at 85°. The significant factor in this case is that, although the difference on the basis of the values is not very significant, it is clearly evident however, from a visual comparison of the thermal camouflage sheets of the generic type with the new thermal camouflage sheets according to the invention that the thermal camouflage sheet of this generic type glints to a greater extent, and can thus be detected more easily.

Thus, the specific outer surface coating as recited in claim 17 is not disclosed, taught or even suggested by the cited references, either alone or in combination, and is not only different, but particularly important to the specific improvement of the present invention over the known camouflage nets and fabric. As claims 18 -34 are dependent either directly or indirectly on claim 17 and new claims 35, 36 include similarly recited features, the Applicant believes these claims to be allowable as well.

Claims 20 and 34 are rejected, under 35 U.S.C. § 103(a), as being unpatentable over DE '362 in view of Pusch et al. '882 as applied to claim 17 and further in view of Fels et al. '457. The Applicant notes that the remaining claims 20 and 34 and 25 through 27 are dependent on claim 17 which is now believed allowable in view of the above remarks and amendments, however, for purposes of responding fully to the official action, the Applicant respectfully traverses the raised obviousness rejection in view of the following remarks.

Fels et al. '457 is entirely different from the essentially passive electromagnetic, IR and thermal camouflage as described in both DE '362 and Pusch et al. '882 as well as from the presently claimed invention. Fels et al. '457 relates specifically to the field of physical, protective armor, in particular to penetration resistant fibers, particularly, protective vests for protection against knives, bullets and explosive fragmentation. While it may be that such protective armor can be provided with visual camouflage as suggested at column 7, lines 5 and 6 of Fels et al. '457, this reference is an entirely different structural and functional device

11/23/05 11:47 AM

10/733,859

designed to resist piercing and cutting, which is an entirely unrelated field and fundamentally different from the passive thermal camouflage provided by the fabric and netting as disclosed and claimed in DE '362, Pusch et al. '882 or the present invention.

Initially, Fels et al. '457 has nothing to do with covering heat sources against identification in a thermal image as specifically recited in claim 17, and contrary to Fels et al. '457 the other references as well as the present invention are not intended to provide physical protection from anything except passive thermal detection. Thus, it is the Applicant's position that while both references could have different military purposes, there is nothing which would cause one of ordinary skill in the art to use the physical protective strength of the materials and weave as disclosed in Fels et al. '457, with DE '362, Pusch et al. '882 in order to achieve the presently claimed invention.

Again, even if these references could be combined in a manner as suggested by the Examiner, Fels et al. '457 specifically discloses a fabric intended to be the outermost surface or covering of a piece of protective armor. As recited at column 9, lines, 50-53 "The fabrics thus produced are further processed to produce a vest to protect against fragments, this fabric being used for the *outer layers* and lining of the vest. . .". The present invention specifically claims that the inner most base layer made of glass filament fabric is fashioned either as a twill or cross twill, as recited in claim 20, "wherein the glass filament fabric (1) is a twill binding, preferably a cross-twill".

Furthermore, the Applicant points out that the outer coating 15, or outer sheath 15, of the Fels et al. '457 example teaches a sheath made of cotton. While it may be that several of the examples in Fels disclose the use of twill and/or cross twill weave, there is nothing which would lead one of ordinary skill in the art to discern that this type of weave would be beneficial in any respect to a passive thermal camouflage as in the remaining combined references as well as the presently claimed invention. Thus, the Applicant reiterates that the use of such a cross twill weave could only be ascertained from Fels et al. '457 as useful in matters of physical penetration of armor which is an entirely different field than that of the passive thermal

11/23/05-11:17 AM

- 8 -

10/733,859

camouflage and therefore there would be no reason for one of skill in the art to look to the other and combine these references.

The Applicant notes that new independent claims 35 and 36 are added which respectively include the further features "wherein the glass filament fabric (1) is at least one of a twill binding and a cross-twill binding" and "wherein a substantially smooth inner surface of the camouflage fabric is formed by applying the surface coating containing the aluminum powder to the glass filament fabric via a transfer coating application to eliminate the formation of peaks and troughs in one of the silicone elastomer and the polyurethane coating located on the inner side of the camouflage fabric". As claims 35 is generally a combination of the above discussed specifically recited features of claims 17, 19 and 20 which are decidedly different from the prior art, the Applicant believes claim 35 is allowable as well. Claim 36 includes the further features relating to the smooth inner surface of the camouflage fabric as created by the transfer application being specifically the silicone or polyurethane coating which is very different from the layer of plastic coating 12 in the Pusch et al. '882 reference which is expressly disclosed in Fig. 3 as having the problematic peaks and valleys in the layer 12 which the present invention overcomes. As these features of the present invention are expressly provided in the Applicant's specification, no issue of new matter is raised and thus the Applicant believes these claims to be allowable as well.

Claims 25-27 are rejected, under 35 U.S.C. § 103(a), as being unpatentable over DE '362 in view of Pusch et al. '882 as applied to claim 17 and further in view of McKinney et al. '465. As these claims are dependent upon claim 17 directly which is believed allowable in view of the above amendments and remarks, these claims are believed allowable as well and no further discussion is believed necessary.

If any further amendment to this application is believed necessary to advance prosecution and place this case in allowable form, the Examiner is courteously solicited to contact the undersigned representative of the Applicant to discuss the same.

11/23/05 11:47 AM

10/733,859

In view of the above amendments and remarks, it is respectfully submitted that all of the raised obviousness rejection(s) should be withdrawn at this time. If the Examiner disagrees with the Applicant's view concerning the withdrawal of the outstanding rejection(s) or applicability of the DE '362, Pusch et al. '882 and Fels et al. '457'365 references, the Applicant respectfully requests the Examiner to indicate the specific passage or passages, or the drawing or drawings, which contain the necessary teaching, suggestion and/or disclosure required by case law. As such teaching, suggestion and/or disclosure is not present in the applied references, the raised rejection should be withdrawn at this time. Alternatively, if the Examiner is relying on his/her expertise in this field, the Applicant respectfully requests the Examiner to enter an affidavit substantiating the Examiner's position so that suitable contradictory evidence can be entered in this case by the Applicant.

In view of the foregoing, it is respectfully submitted that the raised rejection(s) should be withdrawn and this application is now placed in a condition for allowance. Action to that end, in the form of an early Notice of Allowance, is courteously solicited by the Applicant at this time.

The Applicant respectfully requests that any outstanding objection(s) or requirement(s), as to the form of this application, be held in abeyance until allowable subject matter is indicated for this case.

In the event that there are any fee deficiencies or additional fees are payable, please charge the same or credit any overpayment to our Deposit Account (Account No. 04-0213).

Respectfully submitted,



Scott A. Daniels, Reg. No. 42,462
Customer No. 020210
Davis & Bujold, P.L.L.C.
Fourth Floor
500 North Commercial Street
Manchester NH 03101-1151
Telephone 603-624-9220
Facsimile 603-624-9229
E-mail: patent@davisandbujold.com

11/23/05 11:47 AM